Solution Overview

Situation
Providence Hospital sought to improve the readability of its forms barcoding system and improve productivity through forms automation.

Solution
The hospital implemented the Access Patient Flow System and e-Forms Repository. The system replaced an outdated pre-printed forms process, and automated many of the manual tasks required for forms completion and distribution.

Benefits
The Access system increased productivity among clinical and administrative workers, reduced storage requirements and materials costs, and improved the accuracy and security of patient data. The hospital estimates a first-year savings of approximately $70,000.

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--- Beverly Goggans,

Solutions Development Lead, Ascension Health Information Services, Providence Hospital

Providence Hospital

Achieving $70K First-Year Savings with Access Patient Flow System

Summary

Providence Hospital, a 349-bed medical and surgical facility in Mobile, Alabama, faced a number of frustrating challenges related to its Health Information Management procedures. The hospital had spent several years working toward an effective barcoding system for its medical records, with a goal to speed the imaging process and improve the organization and accuracy of patient data. Multiple attempts met with limited success, however, and the hospital's lack of a convenient forms management solution resulted in higher supply costs, storage space constraints, and lost productivity among clerical and clinical staff. After working with Access to streamline the hospital's documentation processes, administrators, nurses and physicians agree: the Access system saves time, space, and money, and makes their jobs easier.

Situation

Since its founding in 1854, Providence Hospital has been serving, caring for and healing the people of southern Alabama and southeast Mississippi. Based in Mobile and sponsored by Ascension Health, the nation's largest Catholic and nonprofit health care system, the hospital extends its healing ministry to every member of the community with a special emphasis on the poor and underprivileged. Providence admits more than 16,000 inpatients annually, and outpatient and emergency room registrations exceed 150,000 per year.

With a focus on patient welfare, the hospital continually seeks to improve the efficiency and cost-effectiveness of its operations. The processes to create, obtain, and complete patient documentation presented particular opportunities for improvement. With recent advances in technology, Providence's management team recognized that the hospital's forms system had become outdated. The manual processes required to gather the appropriate forms, then complete and distribute the information, were no longer adequate to keep pace with an ever-growing demand for fast and convenient access to accurate medical records.

Providence relied completely on pre-printed forms, which were designed and printed by an external forms vendor, shipped to the hospital in bulk, and then made available for use throughout the hospital. To complete a patient encounter, hospital staff would have to physically retrieve the appropriate forms, manually enter patient information, and ensure that copies of the forms were hand-delivered to the right nurses, physicians, and the medical records department. Later, staff in the Health Information Management (HIM) department would be responsible for scanning the forms into the document imaging system.

Over the course of several years, the HIM department was able to speed up the back-end scanning process by implementing a barcoding system on its pre-printed forms. The barcodes were a step forward from an entirely manual process, in that they helped workers get information into the imaging system faster. But even with barcoding in place, the pre-printed forms presented several problems and limitations that needed to be corrected:

- Departments were constantly running out of pre-printed forms and had to spend time requesting more.
- In the absence of original pre-printed forms, workers were making "copies of copies," reducing the visible quality of the document until the imaging system could not read the barcode.

- Some forms went through revisions but the hospital had no effective way to remove out dated versions from circulation.
- Maintaining a large, revolving stock of pre-printed forms on-site required extensive storage space and an employee to manage the process.

In general, Providence's lack of a truly automated forms solution hampered worker productivity, created less organized and less accurate records, and led to higher administrative costs. Presumably, these problems also reduced the number of patients the hospital could serve in a day, and negatively impacted patient satisfaction.

"Achieving a more efficient workflow was critical for us," said Cynthia Hyde, CIO and Assistant VP of Information Services for Providence Hospital. "We needed a way to streamline our current processes, but by replicating them, not changing them."

Solution

In 2006, Hyde and her team initiated a search for a more complete forms management solution that would not only produce electronic forms on demand, but also automate many of the time-consuming tasks that burdened the hospital staff. Working with the hospital's document imaging vendor, Hyde explored the capabilities of multiple electronic forms systems. It was essential to ensure the solution they chose could interact seamlessly with their current imaging product, Siemens' Soarian EDM/HIM application, and their HIS, Siemens' Invision.

After careful consideration, Hyde and Providence determined that the Access Patient Flow System and e-Forms Repository presented the right combination of simplicity and versatility.

The Patient Flow System enables hospitals to easily design customized forms in-house, and distribute them directly to the point-of-need for printing, faxing, e-mailing and archiving. Since all forms are stored electronically in the e-Forms Repository, users always have immediate access to current forms. Patient data can be auto-populated and printed on all required forms, and the problem of unreadable barcodes is eliminated.

While other providers claimed to offer similar functionality, Hyde pointed out several important characteristics that separated Access from the competition.

"It was important to us to have a forms design tool that was flexible, allowing us to make our own customizations. And we wanted to be able to print forms quickly without a lot of lag time in the software – Access is fast," she said. "We also found that Access was the only provider that offered a true encrypted signature capability to guarantee the privacy of our patients."

Implementation

Providence chose to implement the Access solution in its outpatient clinic first, learning the program and making preferred adjustments before taking the inpatient areas online. Based on the immediate success of the outpatient trial run, Hyde's team moved forward with a three-phased approach to implementing Access in other areas of the hospital.

The first phase brought the Access system to all inpatient areas except for obstetrics, due to the special forms needs of the OB area. Next, OB came online along with ancillary areas of the hospital.

"Access has been an immediate win for us," said Hyde. "We've had very high user satisfaction from day one."

--- **Cynthia Hyde,**

CIO and Assistant VP of Health Information Services, AHIS, Providence Hospital

And finally, the system was rolled out to all other departments where patient documentation occurred.

With each phase of the implementation, the seamless integration into existing procedures required little learning curve for hospital staff members. And the new system quickly received an enthusiastic response from users.

"In my 31 years of data processing, I have never been involved with such a positive implementation of software as with the Access Patient Flow System," said Beverly Goggans, Solutions Development Lead for Ascension Health Information Services at Providence Hospital. *"In less than one day of using the product, the end users were 'hooked.' My goal as a data processing professional is to make the life of my end user easier and better. And I believe that Access has done just that."*

Benefits

While Providence Hospital's switch to Access began with the desire for more readable barcodes, the staff soon learned that the benefits reached far beyond the imaging system. In fact, a project review conducted by Providence's Information Services department found that cost savings were both measurable and substantial. Through savings on labor, printing supplies, shipping, wasted forms, and other costs of their former manual processes, the hospital anticipates a $70,000 savings in the first fiscal year alone.

The benefits of forms automation with the Access system became most apparent to Providence in several key areas:

Increased productivity: With Access, Providence's staff can spend less time tracking down and completing forms, and more time working with patients. Any form required is easily accessible through the Access system. At registration, patient data only has to be entered once, after which all appropriate forms are printed with the patient's information included. When necessary, Access' unique Patient Data Intelligence is able to recognize pertinent demographic data and automatically create pre-arranged packets of forms for specific types of patients.
The forms can be printed directly to the printer at the nursing station or department where the patient will go. And with no need to label patient charts, Access makes more effective use of employee time and skill.

For example, Monica Moore, Providence's Nurse Manager in the GI Lab, said, "We have been able to decrease the number of employees who report to work at 6 a.m., thereby ensuring adequate staff coverage for our busy hours. Access has also allowed us to prepare charts in advance of the patient's scheduled visit, which in turn allows us to anticipate and resolve issues that in the past have delayed procedures and decreased patient and physician satisfaction."

More consistent and accurate information: By automating many forms processes that were once performed manually, Access helps Providence to remove human inconsistencies from the equation. To a much greater degree, forms are filled in completely with no information missing and no illegible handwriting. The risk of using outdated forms is also eliminated, since forms are updated electronically in the e-Forms Repository and printed only when needed. These factors are important not only to improve efficiency and accuracy on a daily basis, but also to protect the hospital in legal and regulatory situations. Clearly printed and well-organized information is highly beneficial when an in-depth review of past documentation is required.
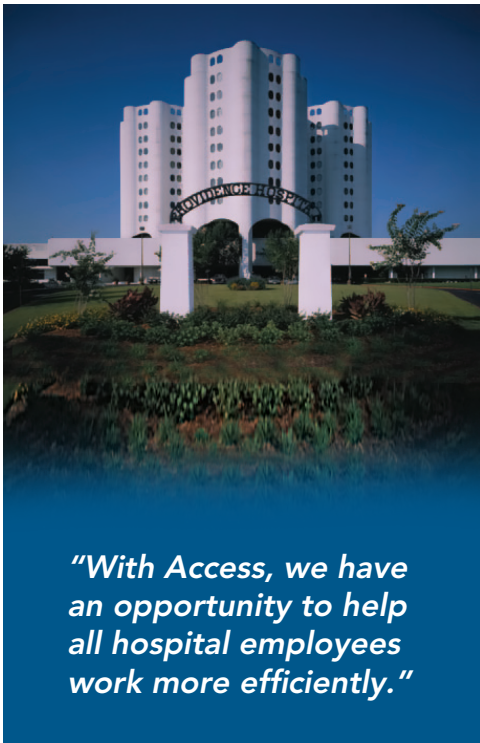
"With Access, we have an opportunity to help all hospital employees work more efficiently."

Supplies and space savings: With the ability to design forms in-house and store all documents electronically in the e-Forms Repository, Providence greatly reduces its need for an external forms supplier. And the hospital no longer has to devote storage space and labor to managing a stock of pre-printed forms. Furthermore, registration desks and nursing stations are less cluttered with paper forms, which improves productivity and creates a more professional appearance.

"We had staff members from another hospital come to tour our facility, and they couldn't't believe how clean and organized our nursing stations were. With Access, you get a lot of shelf space back," said Hyde.

Enhanced data security: When the HIS or other critical applications go down, Providence remains online with Access. The Access system creates a real-time backup of all patient data so employees can continue to work as normal during an HIS outage, and there's no time spent manually entering a backlog of information when the outage is over. Most importantly, patient care can continue without interruption.

"Access has been an immediate win for us," said Hyde. *"We've had very high user satisfaction from day one."*

Future

Having experienced the easy implementation and high impact of the Access system, Providence's Information Services team sees potential for the system to enable several upcoming initiatives. The hospital's longer-term goal is to move toward a complete Electronic Medical Record (EMR) system, and Hyde views Access as an excellent transition tool in that process, as well as providing business continuity for the EMR disaster planning.

Also, since one of the Patient Flow System's most useful features is to auto-populate personal information across various electronic forms, Hyde's team is considering using Access in other data-intensive departments such as finance and human resources.

"It's a big time saver," she said. *"With Access, we have an opportunity to help all hospital employees work more efficiently."*

In the end, that not only improves the hospital's bottom line. It helps Providence achieve its ultimate mission – to provide exceptional care to those who need it most.

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